

James Chenault  
10018 Willow Park Dr.  
Huntsville AL 35803  
(256) 880-5181

August, 2010 – Present: Principle Research Scientist, UAH, working on contract to RTC on Redstone Arsenal as a LabVIEW programmer / Software Engineer with emphasis on 1553 communications, Windows OS, ADSB, GIS, SIMDIS, and much more. Responsible for ensuring project devices are built to specification and for software integration. Projects include Dual 1553 Repeater, CIRCM laser test controller, several ROVER series radio communications systems including the MUM-T and VUIT-2 systems.

March, 2006 – August, 2010: Sr. Engineer, Torch Technologies working on contract to Boeing GMD program as a CLE (Command Launch Equipment) operator, data and procedure review and analyst. Produce reports on data anomalies for presentation to chief engineers. Developed LabVIEW based data analysis program for silo operation during flight test. nLogic split off from Torch in a business deal and I went with nLogic but retained the same position.

August, 2005 – February 2006: Engineer, DRS Technologies, modified existing LabVIEW code to conduct new testing on a series of 24 circuit cards. Created a QDSM scripting language to control a PXI rack containing 10 instruments, including an o-scope, a multimeter, external and internal power supplies, signal generators and several switching cards. This system was used as a demo model for future test bed designs.

March 2003 – July 2005: Sr. Engineer, Davidson Technologies worked on contract to Boeing GMD program performing data analysis and review. Wrote custom programs in LabVIEW for data review and analysis. Also operated various test equipment including Teltron telemetry, Pass 3200 and other data collection systems. Test conductor and author for BV-5 1<sup>st</sup> Article Test.

July 2002 – Feb 2003: Self employed, worked for Boeing through Radical Systems as an independent contractor in support of transportation testing GMD booster. Wrote proposals for Carina Technologies to monitor water supply quality.

January 2001 – June 2002: Technologist, Teledyne Brown Engineering. Assisted in developing active body armor through data review and analysis using microscopes, spectrometers and other test gear. Also developed a low shipping volume lumber replacement for the US Army Corp of Engineers. Worked with high energy materials. Started engineer education program, advising management of new developments in nanotechnology with a focus on developing new spin off businesses.

July 1999 – December 2000: Programmer, Radical Systems. Developed and optimized many routines used in arbitrary precision mathematics with an emphasis on binary ordinal series math. Also developed test beds for test control using LabVIEW.

January 1999 – June 1999: Guest Researcher, Oak Ridge National Labs. Used LabVIEW to control a chemical test bed designed to detect explosives from volatile gases left over from the manufacturing process.

August 1995 – December, 1998: Graduate Student, University of Tennessee, Knoxville. Completed thesis based masters program in chemistry performing parametric studies on “Thin film diamond growth in a hot filament chemical vapor deposition reactor using low energy electron impact ionization time of flight mass spectrometry”. Found conditions optimal to diamond nucleation site generation.

August, 1992 – May, 1995 Student, Central Missouri State University. Studied undergraduate level chemistry, lacking biochemistry for ACS approved BS in chemistry. Selected as McNair scholar by the McCap organization. Undergraduate research: DNP amino acids using NMR and thin film chromatography.

March, 1987 – August, 1992: Customer Service Representative, ZPM. Responsible for repair of office copier systems in a 14 county area of central Missouri. Troubleshooting and routine maintenance, placed in top 100 of 1500 people 3 years in a row and top 10 in 1500 the last year.

June, 1985 – December, 1986: Field engineer, Energy and Power Management. Built, installed and repaired energy management systems, including manufacture and repair of custom circuit boards.

June, 1985: BS Electricity and Electronics Technology Central Missouri State University, Warrensburg, MO.

Sept 1975 – Sept 1979 – U.S. Army, Ft. Riley KS

December, 1998: Masters Degree in Chemistry, University of Tennessee, Knoxville, TN.

Jan 2000 – Present: Continued development, part time, of LabVIEW programs using binary ordinal series math in various compression and encryption methods.

Jan 2001 – Present: Interest in high energy physics which has led to me building a Van de Graaff generator, capable of producing upwards of 4 million volts. The largest spark to date was over 48 inches long or near 4 million volts. Also built a voltage multiplier capable of producing 85,000 volts.

Jan 2006 – Present: Using data from JPL produced a solar activity predictor and wrote software to compare those results with over 1200 stocks for correlation, purpose being to choose investments wisely.

Jan 2010 – Present: Creating new model for nuclear chemistry

Active Top Secret clearance - References available on request